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Agricultural.

CIRCULATION OF THE SAP.

There has been much controversy about the manner in which the sap or moisture in the wood rises from the ground to the leaves and fruit of the tree, some claiming that the term circulation is incorrect, as the sap goes up and does not return. We believe that this is incorrect. The tree or plant, except during the season when it is dormant, if there is such a season, does have sap passing both upward and downward all of the time.

There has been ample evidence to show that in the exogenous plants, or those which make their growth by forming annual layers of wood around the trunk, the sap passes up through the alburnum, or what is usually called the sap wood to distinguish it from the heart wood; it throws off much of its moisture through the leaves and bark as a sort of perspiration, and the leaves, acting as lungs for the tree, absorb certain properties from the atmosphere which changes the character of that which is left to pass downward again, as it does, through the inner bark to the ground. In this elaboration of the sap the sunlight plays no small part.

It is from the sap that is going downward that the cells which make the new wood are formed, and if accident or insects deprive the tree of its leaves, the tree makes no growth until they are renewed, and if the leaves are kept off long enough, the plant must die. This is equally true of the herbaceous plants as of the tree.

When the tree is girdled, it dies, not because the sap cannot go upward, but because it cannot go downward to the root again. If girdled in but a narrow strip, as some practice on grapes or other fruits, more of the sap is retained to make a better growth of fruit, until the space from which the bark has been removed has grown a new layer of bark. If it cannot bridge this space the tree or vine is killed as effectually as if cut off from the roots entirely.

To how great an extent the circulation of the sap may be influenced by the sunlight and the temperature of atmosphere and soil, it is hard to determine. It seems probable that when the air is warmer than the soil the evaporation is most rapid, and therefore there is a need for more moisture to be carried up. When the soil is warmer where the roots are than where the leaves are, but little moisture ascends, and the leaves change color and fall off, and the fruit falls. The only stumbling block to this theory is to be found in those trees which retain their leaves and fruit all winter, yet this is not insuperable, as they may have stored up in their wood, which is more porous or contains more cells than the hard woods, enough to furnish all they need during the winter.

The amount of water which a tree can carry up and evaporate through its leaves has been many times calculated and estimated, but we have not the figures at hand, and do not think them of enough importance to take the time to look them up. There are so many unknown or uncertain quantities in the problem that they are of little value. The number and size of the leaves, the rate of the growth of the trees, the temperature and humidity of the atmosphere, and the amount of water available in the soil, all influence the decision, and while careful experiments and close mathematical calculation may help one man to guess more correctly than another who has not given thought to the subject, it is but guessing at all.

We have seen a statement that a large elm transported something over 150 tons of water in a season, but have not the exact figures. Any farmer who has one near his place or cultivated fields knows that such a tree will reach a great distance with its roots, to get all the moisture and fertility of the soil, and if there is one near a well or stream or drop of water to escape to tell where more can be found, the roots will be down the strongest wall or mason work to get at the main supply. And the elm is not the only one guilty of such practices.

We have said that a part of the returning sap goes down to the earth again from the tree. It does more than this. It carries with it the secretions or excretions of the tree, and in many cases so poisons the soil that it is unfit to grow the same plants of the same species upon. The cabbage is an instance of this soil poisoning well known to most farmers. Not only cannot cabbages be grown well upon a field two years in succession, without developing in the second year the club foot, or stump foot disease, but all other plants of the Brassica family, as the cauliflower, Brussels sprout, turnips, and it is

said some weeds not of that family, will be affected in the same way, if there is not a heavy application of lime made to disinfect the soil.

Another instance is that of a peach tree with the yellows. If the disease progresses very far before the tree is removed, another tree set in the same place will develop the same trouble, usually the first season, and a few shovelfuls of the earth in which it stood, put around a healthy tree a mile away, is enough to inoculate the tree. There may be chemicals to counteract this, or to disinfect the soil, but we are not yet assured of it. The Massachusetts Agricultural Colleges thought they had discovered such, but is more doubtful from recent experiments.

Farm Hints for March. DRAINING LOW LANDS.

The weather as we write does not seem very favorable for doing any kind of farm work out of doors, but the month seldom sees the ground covered with snow all the time or even frozen. At least many of our readers will find the lighter, sandy soils and the well-drained soils fit to work before the month's end. The difference made by a good system of underdraining is never more plainly shown than in a wet and cold spring, when the air and wind does not evaporate the rains or the moisture from a heavy clay soil. We say never more plainly, but it will show all the season, and most

of the upper six inches of a clover field there were 3 1/2 tons of clover roots, containing about one hundred pounds of nitrogen and twenty to twenty-seven pounds of phosphoric acid. This not only enriches the soil, but as the roots decay they leave spaces for water to drain down from the surface to the subsoil, from which it is pumped up again by capillary attraction when the surface is warmer than the soil below.

EARLY CROPS.

There are some crops that can be put in the ground early, as they are not injured by frost or snow, or by the ground freezing after they have come up. Oats and peas are so much alike in this, that if we had

too many bushes in his pastures, and underbrush in his wood lots, should stand by those two varieties for a late pea.

Onions we have many times sown in March in the open ground, if we had land that we could fit properly, but there seems lately to be no great gain by getting them early, and when one follows the custom of growing celery between the rows of onions, or rather onions three to five rows between the rows of celery, the ground requires to be very well worked before the celery seed is sown. It is often the case that plants for the early celery are started under glass and unplanted, and many also practice this with onions now, claiming the labor of set-

ground can be plowed and harrowed, not included in those named above, are lettuce and spring spinach, early cabbages and flat turnips, while beets and carrots may follow soon after. The spinach and the dandelions sown last fall and summer will repay an application of nitrate of soda, at the rate of one hundred to 125 pounds per acre, not only increasing the crop, but giving it a brighter green, that makes it more attractive to the buyer. This should be put on as soon as the plants begin to start in the spring, and never when the plants are wet with dew or rain. All the other crops also would be helped by a similar application of the nitrate if the soil is not already very rich. The small fruits in the garden need working round early in the spring, and a constant warfare kept up against weeds and insects. But it is the orchard that will be the principal battle ground in the war against insects. Canker worms, tent caterpillars, gypsy moth, brown-tail moth and currant worms were all so plenty last year, and neglected by so many, that we fear an unusual amount of trouble with them this year. To search the trees for eggs and nests, to cut off and burn the twigs on which they are, and to use poisonous sprays to destroy those that hatch out, seems to be the only methods that will ensure a good crop, although this is what is called the bearing year for most of our apple orchards. Directions for spraying have been so many times published that it should not be necessary to repeat them now, though many neglected to do this work last year because the crop of fruit was so light they feared it would not pay. But it did pay many who tried it, and they will find another profit this year in more vigorous trees and less insects to combat than in orchards where no spraying was done, and while spraying the use of the Bordeaux mixture to prevent blight and scab on apple and pear, and red rust of blackberry and raspberry bushes, and carbonate of copper on cherry and plum trees should never be omitted.

CARE OF FARM STOCK.

The directions for the care of farm stock need be no different from last month, excepting that the nearer they approach to bearing their young the better care they need. The best hay is not too good for the cows and ewes, and a few roots and light grain feed of bran, oats or oatmeal should give them strength without so heating the system as to create a tendency to milk fever or garget. When we have fed in this way we never found it necessary to give physic, as many writers advise for cows a week before calving. That we look upon as a relic of the days when the cows, fed only the poorest of dry, over-cured hay, were so constipated that they needed physic. Remember that March winds and thaws and cold storms are more trying to the system than the colder days of February, and protect all animals from them as much as possible.

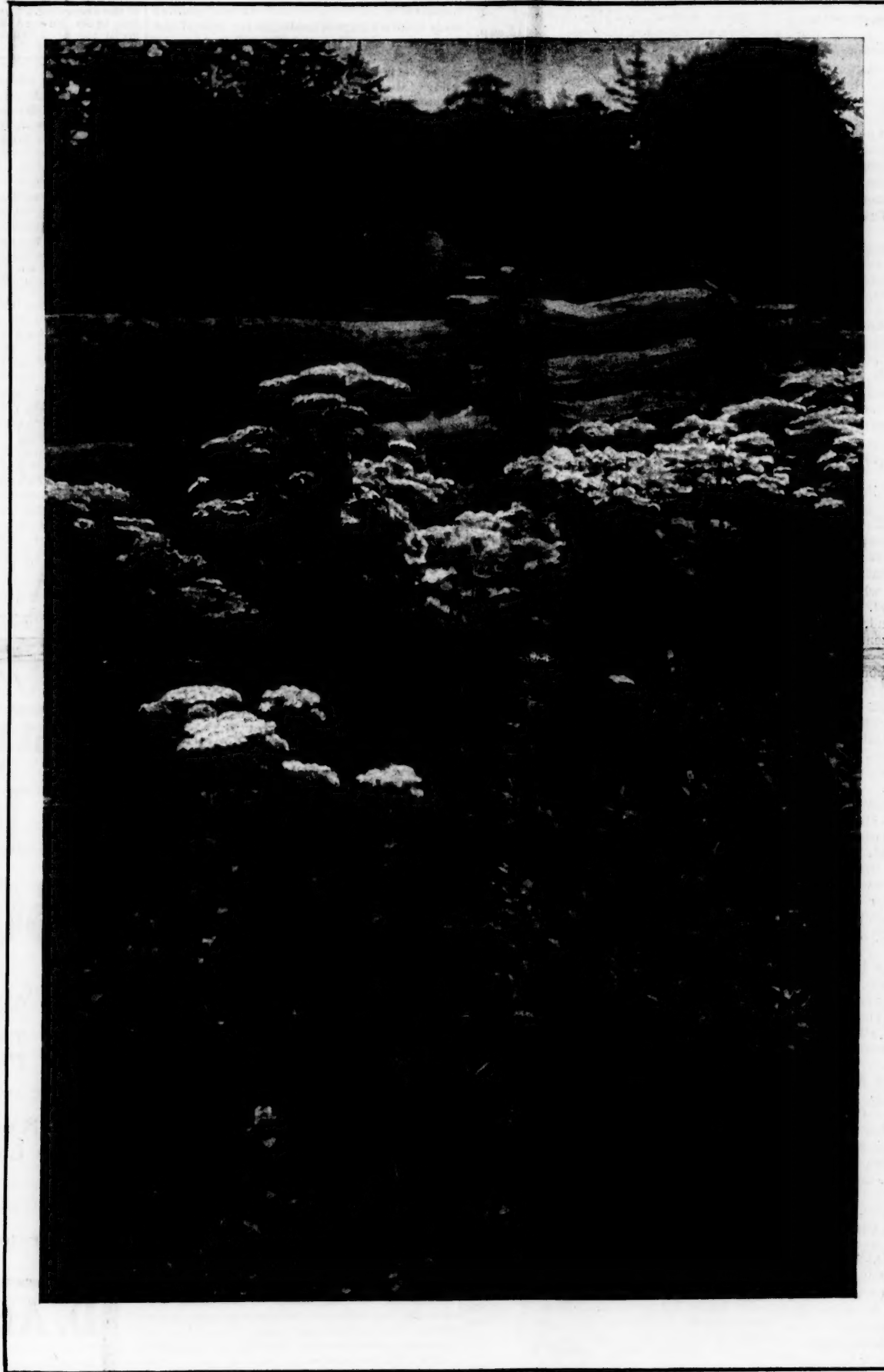
THE POULTRY YARD.

If we judge by the price of eggs in the market, and the complaints we hear of hens not laying, there will be few hens that will be broody this month, but when the ground is bare of snow again, so that they can get out a little extra care will start them at laying, and we will have eggs more abundant in April. And we do not think chickens from eggs set in March are any better than those set a month later, when eggs cost less, hatch better, and the chickens grow more rapidly. By a little extra feeding, and never forgetting the beef scraps, we have had little trouble in getting Plymouth Rocks to lay at about five months old, and Brahmas soon after they were six months old, that is, a part of the flock. Some of them will always mature more slowly than others, under the same care, probably because of the difference in the hens that laid the eggs.

It is said to be a good business policy to have something to sell when other people have but a short supply or none, and consequently prices are high. This is the main idea in winter dairying. But few sell butter to market when the prices are the highest. The objectors to this plan say that it costs more to feed cows in winter at the barn than in the summer at pasture, which is true enough, but as for several years we sold milk, and had, barring accidents, to deliver about the same number of gallons a day at the village at one season as another, we were never able to see that it cost us more, and sometimes thought it cost less to keep a cow a year if her calf was dropped in the fall than when she came fresh in the spring. After a few trials we became convinced that if we wanted to raise a calf from one of the best cows, we had better success with the fall calf than the spring calf. When the time came to turn it into the pasture, it was as ready to get its living on grass or green fodder as the one that was six months older, and the fall calf at two years old was not behind the one of 2 1/2 years old, in growth or maturity. Of course, when selling milk the main point with us was that we could get seven cents a quart in winter as easily as five cents in summer, but while butter making we had a yearly contract at fifty cents a pound, and even then we found that cost and trouble of cooling cream and being butter for transportation in summer was not far from making summer butter cost about two cents a pound more than the winter butter.

Pedigree without merit cuts but a sorry figure nowadays among progressive breeders of trotting stock. A full brother of Dare Devil (2:09) is standing for service at Village Farm at \$15 to warrant.

They say that Prince Henry, although an expert seaman, is something of a horseman, and can navigate an American trotter with considerable skill. If report is correct he owns two trotters that were bred and raised in this country.



THE YELLOW MONTH. FROM "THE OLD FARM," BY RUDOLF EICKEMEYER, JR.
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We expressed at the beginning a doubt if there is any really dormant season for the circulation of the sap, or one of long continuation. We think there is not a month in the winter that it cannot be seen that the buds on our fruit trees are making some growth, though of course it is not rapid, and they could scarcely do that if no sap came to them from the cellular formations in the wood if not from the soil.

Bear in mind that the ascending sap does not go up through the centre or heart of the tree, as has been asserted. If it did the hollow trees with a cavity into which a man or bear can crawl could not live long. But it goes up through the more porous sap wood next to the inner bark or through the layer of new wood made last year, returning through the inner bark which is forming another new layer this year.

But what we have said enough to prove that there is a movement of the sap both upward and downward through the trees, and that both are near the outer bark. Maple sugar makers say there is no gain by inserting a spout more than three inches into the tree, and perhaps less would be sufficient if the spout was held firmly at a less distance. They also should know whether the best run of sap is when the soil is running warmer than the air and the sap is running downward, or if the reverse is true. If they do not, let them test the matter this year.

especially if the owner is in a little too much haste, and plows his land before it is quite ready. He can turn it over but it does not pulverize so that the roots and the warmth can penetrate it, nor do the chemical changes take place that help to render the mineral elements available for plant food. Any one who has such cold, wet land should make arrangements to drain it before another winter, or put it into a permanent grass crop, and then utilize the hay for increasing the amount of stock kept, that the amount of manure made be so increased that the poorer or lighter soils can be enriched. Though they have not the natural fertility of the lowlands, they will often prove most productive, yielding good crops when manure or fertilizer is applied, because they may be worked earlier in the spring, and because, being more porous, they absorb moisture and put it where the roots can find it. But there is one way of draining, subsoiling and making the wet fields more porous and friable, to which not attention enough has been given in New England. We refer to the growing of clover on them, not to be plowed under as a green manure, but to have one or two good crops of clover strike down into the subsoil, and the late Joseph Harris, in his talks on manures, said that, when the clover was cut, that within

decided where we desired to grow them, we were only influenced by the conditions of the fields in deciding which to put in first. The soil is better for a day or two of drying out before the harrowing. As we sowed oats only to out green for hay, and as a nurse crop for clover, we did not care to use the three bushels per acre which used to be the rule when we were young, but thought two bushels a large plenty. Then when the oats were cut, the soil was not so dry nor the plants so shaded as to have the young clover burn out as soon as the oats were raked off.

For early peas we liked to put a good quantity of manure on the soil and plow it in not very deep. Then furrow out about as deep as we had plowed, work a little good fertilizer into the drill and sow seed rather thickly, not filling the furrow quite level full over the seed, but raking a little more earth around the plants when up. Some of the new varieties of the early pea have much improved in productiveness, and more in the quality of the pea when cooked over the early peas we grew even as lately as twenty years ago. Then the early peas had but little of the true flavor as compared with the later Marrowfat and English Champion. And these last stand at the head even yet for quality, but are not adapted for a village garden, where it costs more for a few bushes for them to climb on than to buy the peas. But the farmer who has plenty or

ting the onion plants to be less than that usually required for the first hoeing and weeding. Though onions, like most other vegetables, have brought good prices this year, we are not sure that they cannot in an ordinary season be grown so much more cheaply in the West than the farmer located near an Eastern market cannot find more profitable crops for his field and garden.

Early potatoes proved an exceedingly profitable crop for the few who had them last year, because of the failure of Southern crops, and the fact that the spring rains usual in New England, Long Island and New Jersey, those two points being the usual sources of supply after Norfolk has exhausted her resources. A few who sprout their potatoes under glass and set the sprouts about the time others are planting unsprouted seed gained a few days and realized better prices for their earlier crops, but it may be true that those who are supplying the winter market are having quite as good returns for their money and labor, especially those who treated their tubers with formalin or corrosive sublimate to prevent the scab, and sprayed them to prevent blight and kill the Colorado beetle.

GARDEN AND ORCHARD WORK.
An early garden to supply the family table is of great importance. Among the crops that may be planted or transplanted from the hotbeds almost as soon as the

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Turkeys and Apples.

dealers in the matter and they decided that if he did so the market would be flooded and prices would slump. Despite their warnings he sent the 10,000 barrels, and no sooner had they been landed on foreign shores than the market fell off one shilling which cut off all profits. To this agent the slump meant only one thing: that apples had not yet become well enough

Poultry and Game.

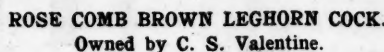
The receipts of poultry have been larger the past week, and while prices on Northern and Eastern fresh killed have not changed much, it is easier to buy than to sell at last

horticultural

The Springfield Republican tells of some of the possibilities of garden crops. A man in New Hampshire realized \$285 on an acre of currants the fourth year after setting. Set four by five feet apart it takes 2178 bushes to the acre. A man in Ohio raised 10,000 quarts of strawberries to the acre. A netted Gem musk melons planted five by five feet apart give 1495 melons to the acre. A good quality melon will yield ten to 20 melons to the hill. Sweet corn at nine inches apart in rows three feet apart gives 9,360 stalks to the acre, and one ear to the stalk is 1613 dozen, \$129 per acre at eight cents a dozen. Celery in rows three feet apart, six inches apart

Vegetables in Boston Market.

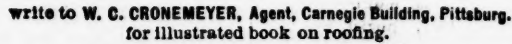
and exports were 2963 barrels. At quotations the supply proved too large for the demand, and prices have weakened. Copy and No. 1 Maine Baldwin apples at \$4 to \$5, and \$4.50 to \$5.00. Greening at \$3.75 to \$4.25, Western Ben Davis \$3.50 to \$4.25, and \$4.00 to \$4.50. Greening at \$3.75, Talman Sweet \$2.50 to \$3.50, mixed varieties \$3 to \$4 and No. 2 \$2.50 to \$3.35. Cranberries in light supply. Cape Cod fancy late are \$7 to \$8, choice sound \$5.50 to \$6.00, common to good \$4 to \$5. Rates \$2 to \$2.50, Jersey \$1.75 a box. Florida strawberries in light supply and refrigerated lots selling at 40 cents a quart for the best, but fair to good at 30 to 35 cents. Some lots poor and green even lower.



The Hay Trade.

Export Apple Trade.

The total apple shipments to European ports during the week ending Feb. 22, 1902, were 28,663 barrels, including 300 barrels from Boston, 3650 barrels from New York, 49 barrels from Portland, 18,830 barrels from Halifax and 625 barrels from St. John, N. B. The total shipments included 48 barrels to Liverpool, 13,258 barrels London, 6305 barrels to Glasgow, and 4 barrels various. The shipments for the same week last year were 35,449 barrels. The total shipments since the opening of the season have been 718,628 barrels.



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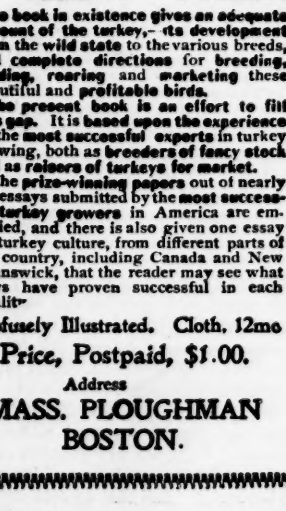
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Who wouldn't be a part of Greater Boston?

The memory of Rebecca Salome Foster received well-deserved honor in Gotham.

The heyday of the blood is far from humble in the case of the latest elopement.

It certainly suggests general prosperity when a sneak thief goes about his business in a sleigh.

The Chinese reformers will never be happy until all those heads are delivered on the proper chargers.

When a Chinaman throws a flatiron, one is distinctly reminded of the fact that even the worm will turn.

A good man is good to his beast; therefore Dr. W. Seward Webb must be a particularly good man.

One would imagine that the carpenters down New York way would be particularly able to patch up a truce.

We were particularly touched by the salute Alice and the biscuits Henri. But why not a Deutches Brod Heinrich?

Another man has lived too lavishly. Many a social tombstone might be inscribed: "He lived not wisely but too well."

Polygamy is reported to be increasing—and this in the very hour of woman's declared ambition to look after herself.

A tin-plate president talking to hardware men is strikingly suggestive of an unyielding and coldly glittering commercial age.

We respect Miss Jewett, but we are glad that the Rev. Mr. Bisbee was only tempted to call her the Joan of Arc of America.

If the people want to vote on the laws, eventually they will. Meantime it looks as if the initial desire was becoming more general.

The lobster is in danger of losing a full inch of his legal length. The wisdom of not being a clam becomes less and less obvious.

Perhaps the climate is responsible for the cool editorial attitude taken by the Russian press toward the American reception of Prince Henry.

Boston is still Boston as long as she continues to number retired merchants among her citizens. The title breathes the atmosphere of the older regime.

According to the vital statistics one lonely man made a fifth marriage. Here is a man who knows his duty toward a surplus female population.

The pugnaeous senators may well meditate upon the fact that though a man may get good it is always unwise to lose control of his temper.

The no-license celebration in Revere was perhaps conducted as an object lesson showing that it is possible to have a real celebration in a no-license town.

The junior class at Tech did not vote to hold a "kommer," nor did they elect to specify a "smoker with beer." Why should they? What's in a name?

The brown-tail moth has got as far as Lynn. Probably the emigration might have extended to Salem save for the widely spreading fame of that city's chief executive.

Now it's the Unitarian Church that is having its attention called to the fact that multiplication is becoming sadly neglected in the arithmetic of fashionable Christianity.

Mrs. Stone is released and Mr. Blondin is caught. Here is encouragement for whoever gets impatient because the world doesn't seem to move fast enough to suit him.

Human nature would lead us to expect a sudden increase of illness out at Harvard, and a continuance of it until a majority of the undergraduates have tried their new infirmity.

Concerning the color line the Federation of Woman's Clubs seems to have made a compromise without knowing just how much they are compromised individually. Now for a test case.

The trees of Philadelphia suffered severely in the storm the other day, but it is more comforting to lose trees by a storm than to lose them by negligence, or even more, by not investigating the possibility of negligence.

The proposed Northern-avenue bridge has been characterized as an attempt to frost the cake of certain down-town merchants by taking the butter from the bread of others. But is cake usually frosted with butter?

The death rate is decreasing. What is even pleasanter, it bids fair to decrease yet further. Medical science is moving much faster than it used to, and making surer of its ground as it goes along.

Hail, balmy spring! Ethereal mildness has put in an appearance, even if only for a preliminary visit; and so likewise has the first man of the season who dispenses with his waistcoat.

It is certainly provoking when the parent of one's fiancée refuses to furnish means to start the young couple housekeeping. Nevertheless it is carrying exasperation too far to shoot the father, the proposed sister-in-law, and oneself into the bargain.

Here is the most interesting tribute: the North German Gazette has announced that, instead of its usual novel, it is going to print selected portions of President Roosevelt's "Ranch Life and the Hunting Trail," in an authorized translation.

Another famous minstrel, of the days when burnt cork was not the last refuge of amateur entertainers, has joined his predecessor across the Jordan. Minstrelsy itself seems going the way of many of its once prominent exponents.

Having in mind a recent address to the Browning Club, we are pleased to say that we do not "feed wholly on white bread, and the tenderloin, and the sweetness and light

of the best people, and art for art's sake."

There are not many persons whose feet are legally declared worth \$30,000, but the small boy to whom a New York jury has recently decreed that sum for injuries sustained in a railroad collision will hardly find it full compensation.

By what arithmetic, may we ask, is it possible to compare the relative amount done for the United States by the good ship Constitution and Harvard College? The question has nothing to do with the fact that the frigate is worthy of all possible perpetuation.

Judging by the accounts Molly Pitcher is a very lively heroine. The author evidently meant to lead up to the cannon episode, and prove conclusively that Molly was just the kind of woman who would have done just that kind of thing.

The Watch and Ward Society is responsible for the statement that our friend, the policeman, works seven days in the week. Unfortunately, the same may be said of the criminal classes; but it ought to be possible to evolve a system under which the guardian of the peace should have a little more time to visit with his family.

Mr. Upham, speaking for the petitioners for the removal of bill boards in the vicinity of the parks, remarked that the bill boards distressed and yet attracted him. That is one of the best reasons for their removal, in view of the fact that many other persons find themselves in like condition when confronted by them. Bill-board advertising is often as painfully insistent as the refrain.

Punch, brothers, punch with care. Punch in the presence of the passengair.

Art and the School.

We believe it was James Freeman Clarke who originated that description so admirably applicable to the women advocates of divers good causes: "She was always trying to fill a need that had first to be created." The characterization occurs to us, apropos of the recent discussion concerning the necessity and advisability of annexing our public schoolrooms with artistic photographs and plaster reproductions of the great masterpieces of painting and sculpture.

An observant critic has pointed out that to give healthy schoolboys and simple maidens the Rembrandt portraits, the friezes of the Parthenon and the ruins of the Roman Forum is like sending them to Shakespeare and Gibbon's "Decline and Fall" before they have had "Robinson Crusoe" and "Alice in Wonderland." The Old Master in general is an acquired taste, this writer with commendable frankness remarks, the last thing culture comes to appreciate and really love. It is cruelty to children to puzzle them with such things. It is dangerous to lead them to profess for them a sham respect they do not feel.

The only way in which the child can be so trained as to love ultimately the masterpieces in art is to develop his feeling for the beautiful and true in reproduction of nature by leading him gently along the lines of least resistance. The primary steps must be in things which are correlated to life as he knows it, pictures which, like that of "Can You Talk?" even a baby mind loves and comprehends, and others of the same nature and simplicity. Again, to expect the young child to care really at first for the armless Venus di Milo is analogous to demanding a recognition of the beauties of a Wagner opera from an intelligence scarcely up to Sousa.

And while on the subject of the Venus it might be said that there are many besic artistic reasons why our public schools should not be too generously decorated with beautiful plaster casts. In these days, when Prof. Sedgwick talks so vigorously about germs, and cleanliness is more than ever before held to be next to godliness, it is strange, indeed, that people have not protested at the casts as dirt-catchers. Nothing is more beautiful than a pure, white piece of plaster moulded into an artistic image, and few things are more ugly than that same plaster after it has lost its pristine purity. Now, in a public building, like any one of our Boston schools, the time that elapses between the coming of the bust, or statue, or relief and its last state,—so woefully worse than its first,—is, at best, a short one. For dusting is little practiced in these buildings, and the consequence is that the child is often told to reverence as the supremest manifestation of the art-spirit a thing that is "all broken and horrid dirty, too," to quote a frank youngster's criticism.

Art is all very well in its place, but we question whether its place is in the badly kept schoolrooms of Boston. A sense of eternal fitness should be a part of art, we hold. But if the children must have art in the schools, give them Perry pictures, that can be thrown away and replaced when soiled. Then send them to the Art Museum on Saturday, there to look at the Venus, the Victoire, the Flying Mercury and the Parthenon Frieze.

A Friend to the Cow.

The Hon. T. J. Selby of Illinois favors the Grogout oleomargarine bill and made the following speech in Congress in its favor:

Mr. Chairman—I desire to say a few words on this greasy subject. I am a friend to the cow. I am a friend to the man that milks the cow. I am a friend to the man that stands by and watches his wife while she milks the cow, for is she not his helpmeet? I love to see the woman churn the foaming cream until the butter comes. I love the nice fresh buttermilk, and love to see the busy housewife wallop the butter about in her hands into shapely rolls. I love to see the butter come, and then I love to make the butter fly.

Memory goes back to the happy times when the cows came home, and to the less happy times when I had to make them come home. Any man who has been raised with a cow will never lose his friendship for her.

HOOD FARM Garget Cure

In garget the udder becomes inflamed, hot, red and painful, and the milk smells thick, stringy, bloody or watery.

A tablespoonful of Hood Farm Garget Cure mixed with damp feed two or three times a day will cure any ordinary case.

"One of my cows had bloody garget and I fed her Hood Farm Garget Cure, night and morning for six days, after which the milk was all right." A. E. Loomis, North Wolcott, Vt.

Prices, \$1 and \$2.50. Sent to any railroad express point in the United States, \$1.25 and \$2.75. Large holds four times dollar size. Hood Farm Garget Cure—especially prepared for the use of the farmer. It takes garget and its causes. Mention this paper. C. I. HOOD CO., Lowell, Mass.

nor go back upon her, nor upon her back when adversity strikes her business.

The gentleman from Virginia (Mr. Lamb) paid the Virginia cow a beautiful and eloquent tribute, but let me say to him that the Virginia cow cannot be compared with the big fat cows of the Mississippi Valley and beyond. I am well aware that Virginia is entitled to the proud distinction of having been the "mother of Presidents," but she was not the mother of the cow. The Mississippi Valley cow is a marvel of wonder and the pride of every home. She never goes dry. She is kind and gentle, and has such maternal affection that she often licks the milker instead of her calf.

If I fail to vote for this bill I shall feel that I cannot go home and ever again look an honest cow in the face. The cows in my country are Democratic cows. They give Democratic milk, which accounts for the everlasting big Democratic majorities in my district. They are not yet aware, sir, that there is such a thing as oleo in any part of their anatomy. Why, sir, even our hogs have not learned that their greasy lard contributes to the greedy work of building up a great anti-cow butter monopoly. If the peaceful hog knew it he would grunt in shame.

The cow in my country lives in Arcadian simplicity. She dwelleth amid green pastures, and looketh dubiously at the Republican politician as he passeth by on his mission to hoodoo the honest voter.

Frolicsome calves gallop about with tails erect, rejoicing in the fullness of democratic freedom that is theirs. The cow is contented and happy out in my district in her benevolent work of giving milk for young Democrats. Little does this patient cow know that the honest product of her toil is being counterfeited so successfully by cunning men that the butter eater knoweth not any more what he eateth when he buttereth his bread.

This "wholesome food product," called oleomargarine, you say is such a fine counterfeit of genuine butter, such a delicious substitute, that the honest son of toil cannot tell whether he is eating pure butter or this fraudulent compound of hog lard, steer fat and cottonseed grease.

Why should you not be as earnestly and eloquently advocating an honest thing for the honest workingman as you are earnestly and eloquently advocating this substitute, this compound of mysterious fats, for him? I tell you the honest son of toil is entitled to have the honest product of honest labor, the best, and not the poorest, the genuine and not the counterfeit. We should take off our hats to these honest sons of toil, for we are here by their votes, by their kind permission. They expect us to prevent fraud, not to protect it. They expect us to give an honest vote for an honest measure. This bill is an honest measure to protect an honest industry.

Gentlemen, let us stand by the honest cow, and verily we shall have an abundance of genuine butter for our bread, and milk for our babies—and the earth and the fullness thereof shall be ours.

Improving the Grass Crop.

Most of our pasture and grass lands do not need thorough revolutionizing and replanting as much as a little encouragement. Many fields have nearly all the essentials of a fine pasture, but they lack just the necessary encouragement that the farmer fails to give them. There is first the pasture land that has been heavily cropped for two or more years, and is beginning to show signs of weakness. It has had the right start and has yielded heavily, but it now demands something more than the ordinary attention. To prevent a complete failure of the next crop it would be wise to give that grass field a good dressing with something that will make the plants thrifty and active. A dressing of 150 pounds of nitrate of soda to the acre would encourage the plants to a new growth of great activity. Indeed, no field of grass can be continuously cropped for two or more seasons without needing some such dressing. The cost of the nitrate of soda will more than be compensated for in the extra yield of the crop.

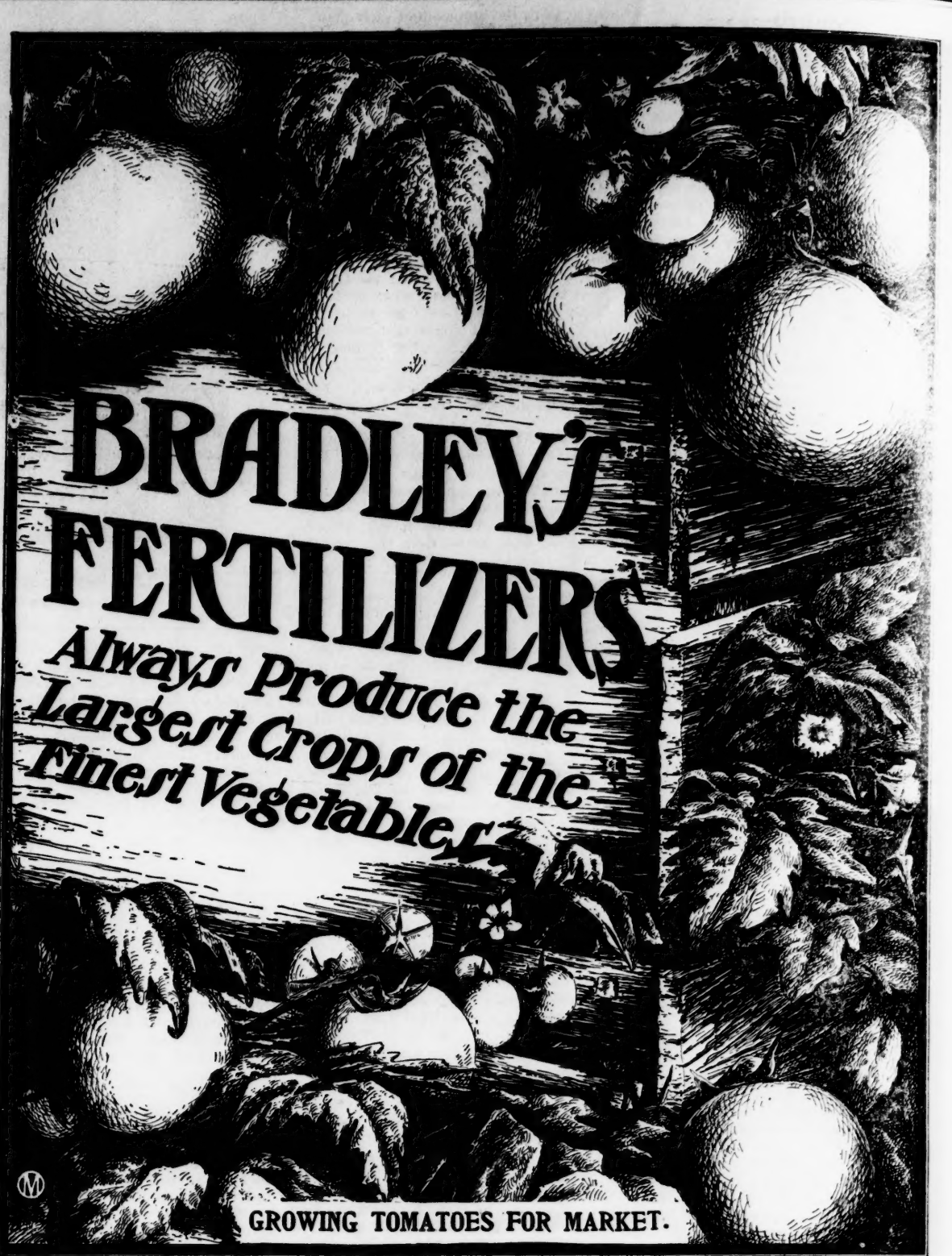
A common practice to improve a pasture field of this character, or, in fact, any other that begins to show signs of weakness in places, is to sow more seeds over it. Some try clover, thinking that the seeds will catch and enrich the whole crop and make it heavier. The fact is, that is waste of time and good material. The clover, or grass seeds, will hardly take root without plowing up the field, and is not desired. It is much better to enrich the soil so that the roots already established can do their best. If the field has been properly sowed at the beginning there should be roots enough in the soil, and all that is needed is good soil and a little stimulation of the plants there.

In starting a field of grass or pasture land so much depends upon the way of preparing the soil and enriching it with the right manures and chemicals. Land rightly fertilized and thoroughly plowed and pulverized should make a crop of grass thrive so that the ordinary cropping will not injure the roots. Close cropping by animals late in the season may cause trouble, because the roots are exposed to the frost and snow, and late cutting of grass or grazing of animals on it must be discouraged. We should have fall forage crops for feeding the animals in the autumn so the grass crop can be saved. With a little care in this way, and an annual top-dressing the yield of grass could easily be kept up twice as long as ordinarily proves to be the case.

Skim milk Calves.

Skim milk calves can be raised at a greater profit than nine-tenths of the farmers imagine, but most of them are not so raised. It is not a difference between theory and practice, but a difference between methods. Fine skim milk calves six months old frequently bring from \$15 to \$20 per head, and at that rate they are very profitable if the cost of raising them has been kept within reasonable limits.

There is some risk in the work until one has become expert at it. Then it is simple and sure. The calf must be taken from the mother early. Some do it when it is a few hours old, and it is fed by hand without knowing anything about sucking. Five quarts a day divided into three meals should be all that the calf should be fed at first, and this quantity is gradually increased up to about six quarts. The largest meals should be given night and morning and half as much at noon. The milk should be at the temperature of the milk from the cow as possible. All calf milk should be fed warm and sweet. Later sour milk can be fed, but in that event it must be fed sour all the time. To change from sweet to sour will cause trouble. When two or three weeks old skim milk can take the place of the sweet, full-cream milk, but the change should be made gradual. This is necessary because the quantity must be increased. It takes nearly twice as much skim milk as cream milk to produce a pound of flesh or fat.



BRADLEY'S FERTILIZERS

Always Produce the Largest Crops of the Finest Vegetables

GROWING TOMATOES FOR MARKET.

FOR SALE BY
JOSEPH BRECK & SONS, Corporation,
51 North Market Street, Boston, Mass.

When the change is complete the calves can be fed nearly all the skim milk they will eat, but a little meal and ground grain can be added about this time to give them more strength and growth. At first put a little moistened meal in their mouths after drinking, and they will soon acquire a taste for grain. Within a week they will learn to take the meal themselves from the pail.

Four-week-old calves will eat nearly three-quarters of a pound of meal a day, and in eight weeks must double this amount. The feeding must all be done with care, and the food should be given after this in larger proportions. Hay can be fed to them when eight weeks old, and they will enjoy nibbling at it. Nothing but clean, bright hay or grain should be given. No more hay or grain should be given than they will eat up clean at one time.

The calves need plenty of sunshine, clean quarters, fresh air, but warm sleeping places, and regular kindly treatment which will make them grow and fatten rapidly. Good thrifty calves will then net in their owner more profit than most other animals.

High Grade Fertilizers.

When Professor Mapes began the manufacture of the Mapes Manures, or commercial fertilizers, three points at least were made a part of his plan. To use only pure Peruvian Guano chemicals and bone as ingredients, to have them so made that both chemical and mechanical condition could be guaranteed, and to advise the use of an amount that would prove profitable even though the cost was greater than that for the small amounts that some other manufacturers advised to be used.

The wisdom of this plan is manifest today in the popularity of the fertilizers from Maine to Florida, and most especially in the truck farming, market gardening and small-fruit-growing sections, where an increased crop pays well for a little increase in cost of fertilizer used.

But that they can be used to profit by the farmer who grows field crops, rather than garden crops, can be shown by reported yields of from 125 to over 200 bushels of shelled corn per acre, 11,000 ears of sweet corn to the acre, and from 700 to over 1000 bushels of potatoes per acre, not on round-square plots of unusual fertility, but literally by the acre or several acres.

That they do furnish, not a stimulant for one year's growth and exhausting the soil, but a compound that permanently enriches the soil, may be shown by the numbers who have used these fertilizers or manures for from five to twenty years upon the same fields, without other manure, and have grown good crops each year and find the fertility of the land increasing. They are now made adapted to different crops and also to light and heavy soils. Send for their pamphlets and then test their fertilizer on your own soil.

Notes from Washington, D. C.

Dr. L. O. Howard, the entomologist (bug man) of the Department of Agriculture, one day last week entertained a delegation of Congressmen from Texas, who came to urge him to use all his efforts in an endeavor to have Congress make an appropriation of \$20,000 (as introduced in the House) for the destruction of the cotton boll weevil. This insect, it is stated, caused damage last year to the extent of over \$1,000,000.

"There is no reason to believe," says Dr. Howard, "but that there is merit in such an appropriation, for Texas certainly needs protection against this insect emigrant from Mexico. What is needed is not (as in the case with anarchists) restriction upon emigration, for that cannot be done, but a means of eradicating the evil."

"Of course we have aided the cotton growers as much as possible, but our means

are limited. Another form of insect life against which we are working is the grasshopper. We are trying to eradicate them, you know, by introducing a fatal fungus. In my tour of inspection in the various localities out West last fall, I was confronted by various reports, some encouraging and others the contrary. Where the fungus was used in wet weather, the results were all that could have been asked; in dry weather it made small inroads on the insects. And so we must make further experiments along these lines for another season, and I then hope to be able to determine whether or not the South African fungus will do all that is claimed for it. I will treat the subject at length in the new year book of the department.

"Insect life, after all, is nothing more than a reproduction of the every-day affairs of the human family,—one band preying upon another in order that they may live. Instead of a form where might is the winner of the battle, success crowns the efforts of those who live by stealth and avarice."

"This latter form of those who work in silence, their neighbors unconscious of their labors, is represented in insect life by the seventeen-year cicada, which for seventeen years has been existing underground, undergoing the various changes of its life, until it will emerge next May in such numbers as to cause alarm among the uneducated. But aside from considerable twig pruning, they are not so devastating as one might believe. That the cicada will appear next spring I am not in the least doubting,—they will come just as sure as the sun rises regularly, and they will go with the same precision. We have records reaching back for the last one hundred or 150 years of the appearance of the periodical cicada in different localities, and the brood which appeared in such vast numbers in the Eastern and Middle States in 1885 is the parent of the family which appears this year."

Germany has just issued a decree prohibiting the marketing or importation of meats upon which chemicals injurious to health have been used. The same prohibition applies to coloring matter of all kinds, except yellowing for oleomargarine and tinting for sausage skins, in so far as this can be done without violating the regulations.

It has been hinted here that a cold statement of facts would not show the desperate conditions which are claimed to exist in Cuba. The testimony of Edward F. Atkins of Boston, president of the Trinidad Sugar Company of Cuba, and manufacturing some twenty-two thousand tons of sugar, before the ways and means committee of the House, admitted that wages paid on sugar plantations for workmen is \$23 a month, which is certainly a good rate of wages, and should release plenty of money in the island.

Prof. Lamson-Scribner, formerly chief of the division of agrostology of the Department of Agriculture, left Washington Thursday, last week, for the Philippines, where he is to be the chief of the Department of Agriculture of those islands.

Mr. Scribner has requested several members of the Department of Agriculture to accompany him. Mr. E. M. Merrill of the division of agrostology has accepted a position as botanist of the new department, and Mrs. Baldwin, a sister of Minister Conger to China, will also accompany him.

Cows That Did Not Clean.

"C. I. Hood Co., Lowell, Mass.: "Dear Sirs—I have had but two cases of abortion in my herd this season. One of the cows partially cleaned. I administered Hood Farm Breeding Powder, and in a few days she was sweet and wholesome. Another cow, a fine Jersey, did not clean at all. I administered the Breeding Powder and she cleaned in less than an hour." H. W. DUTTON, Royalton, Vt.

FERRY'S SEEDS

For The Farmer The Gardener and The Housewife

They cost a little more. They are worth a great deal more than the ordinary kind. Sold everywhere. Free catalogues.

D. M. FERRY & CO. Detroit, Mich.

150 Kinds for 16c.

It is a fact that Salzer's vegetable and flower seeds are found in more gardens and on more farms than any other. We want to induce you to try them. We make the following unprecedented offer:

For 7 Cents Postpaid

50 kinds of rarest flowers, radishes, 25 magnificent earliest potatoes, 10 sorts of glorious tomatoes, 10 sorts of choice cabbages, 25 splendid beet roots, 25 perfectly healthy flower seeds. In all 150 kinds positively furnishing a garden of charming flowers and vegetables that are now in season. Together with all about Tomato and Potato growing, and all about the best of the best of the United States. I offer the above head-quarter's seed. Send for free catalogue for 16c. in stamps. Write today.

JOHN A. SALZER SEED CO., La Crosse, Wis.

FREE GREGORY'S SEED CATALOGUE FREE 1902

As the original introducer of the Hubbard Squash, and a score of other vegetables that are now in season, the United States, I offer the above head-quarter's seed. Send for free catalogue for 16c. in stamps. Write today.

J. J. H. GREGORY & SON, Marlborough, Mass.

Success with Seeds

Good seed brings good results. The sowing of

ARLINGTON Tested Seeds

always results in the raising of a rich crop. Send for free catalogue for 16c. in stamps and picture. Free.

W. H. ARLINGTON & CO., 12-18 Faneuil Hall Sq., Boston, Mass.

PREVENTION PILE-PENCIL REACHES EVERY CASE TRY IT

AT DRUG STORES or POSTPAID

25c WILLARD CHEM. CO., Dept. B, 6 Merrimack St., Boston

[illegible]

FARMERS' WANTS

ONE CENT A WORD.

Farmers' Want Department is established to allow sale and exchange of farm products. Send from home or business. No charge unless you are sent per cent word only, including name, address or telephone number. Display Cash to accompany your order.

WANTED—Two middle-aged, Protestant women, one for cook, one to wait on table, sweep and wash healthy chickens; first-class yearling breeding stock at home for sixteen aged pigs, ten miles from Boston; must be good cooks. Good wages. Send references to BLAKE, Box 204, Boston.

WANTED—A young man on a strawberry Farm. S. HAWKINS, Weston, Mass.

WANTED—Two middle-aged, Protestant women, one for house work, one for waiting on table as maid, at home for sixteen aged pigs, ten miles from Boston; must be good cooks. Good wages. Send references to BLAKE, Box 204, Boston.

PRAIRIE SALE.—290 eggs Prairie State incubators; 106 egg sets; two new hatching machines; also many other poultry accessories. Original flocks, warranted to bring up strong healthy chicks. Write for catalogue and prices free. Order by mail from our Hawking strain, pure-blood, royal blue-crested variety. All birds have been raised under age care and hatcheries. Illustrated circular on application. ASKEW & COMPANY, 71 Glenmont Avenue, Washington, Arlington Heights, Mass.

WANTED—Farm managers, herdsmen, gardeners, foremen, etc., who represent themselves as men going west to California, who want competent men with money to invest in their schemes. THE TRUSTEE AGENCY, Urban, N. H.

PRAISE SALE.—Hwy pair of good horned pigeons, fifty cents apiece; too many more also good boys; five years old still springing fine broods; weight 1200 lbs.; perfect shape; cheap. BOX #41, Warren, Bristol County, R. I.

WANTED—A practical working farmer, married, who can take hold of 35 acres of arable land and improve it. He will represent himself as a man wanting to pay for joint account. Home conveniences complete. He has no family. Will accept payment in the same daily; an unwilling to pay salary to manager nor afraid of work. Address with exact location to FREDERICK ROSS, New York City.

WANTED—A respectable girl for cooking, washing and ironing. Family of five persons, comfortable kitchen. JOHN D. HARRS, Box 186, West Springfield, Mass.

WANTED—Married man on farm, good milkier, no children, willing to leave his present position without reference. No children. O. K. TAYLOR, Dudley, Mass.

MAMMOTH Light Brahmas, up to 4 pounds at maturity. Great water layers. K. S. HAWK, Champlainburg, O.

WANTED—Married man to work on poultry and fruit farms! Must be able and willing to work. RICHARD EFFORD, Fall River, Mass.

ON-FARM in Virginia, a woman to do general household duties and manage small place. Apply to F. W. KELLOGG, Benson, Vt.

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Baby's First Teeth.

The period when dentition is most likely to be painful is when the teeth first begin to grow in the little sacs which encase them. It is at this time, if at any, that the child suffers, especially a child whose teeth are late in coming, and whose gums are therefore become hardened. It is sometimes, in cases like this, advisable to cut the gums, but the cut should be made deep enough to pierce the sac which

Some vegetables leave stains, and if one of the foregoing prescriptions fails to rid the cloth of them, try the others: then if all of them fail try wetting the stain, and holding over it the fumes of a burning sulphur match. Hold it there as long as any sulphur remains on it, and then strike another and another, till the good work is complete. If the stain is a troublesome nuisance, once it gets washed on table linen, but when the offence is fresh plenty of soaking in sour milk will, as a rule, make the cloth as white as ever. If by any chance a hot iron scorches the tablecloth, lay it in the sun for three or four

—Mixing salt with it, in a kees it mucholero
the ice in a wine cooler goes down to about zero.
This is why the point zero on our common ther-
mometers was fixed where it is. It was supposed
to be the lowest point which could be reached by
natural means. Since then we have reached
point 383 degrees below zero by chemical process.
—It is estimated that seven hundred thousand
people in London live by crime.

There is certainly one most potent, most marvelous source, even, of vitality and energy and exhilaration and poise,—that of the mind bath on rising. The difference of taking or of not taking it is almost as wide as the gulf between achievement and non-achievement. Nor is it merely unhelpful to associate with this a current of mental resolution, of spiritual aspiration, that at best establish the unity of the physical.

We are not much afraid to have them out when the ground is bare, as they do not fly so far that they cannot return before the weather changes. In fact, were you a colony of bees you will beat the weather, you, or a man with rheumatism or corns

er Him the whole use of your day, as you must use
your eyes to the light of each morning, to be
in active service or silent suffering, accord
His good pleasure. You will not select the
agreeable task, but His task, whatever it
; you will not disdain humble service, or
ambitious for distinguished service; you will
as a straw, on the current of His will, to be
away and be forgotten, if it pleases Him,

Full many a flower is born to blush unseen
And waste its sweetness on the desert air
And many a social bud so fresh and green
Will waste her sweetness on a millionaire.

Full many a flower is born to blush unseen
And waste its sweetness on the desert air
And many a social bud so fresh and green
Will waste her sweetness on a millionaire.



THE NOTED CALIFORNIA SIRE, GUY WILKES, 2.15 1-4.

The Horse.

Guy Wilkes (2.15 1-4).

Guy Wilkes, whose likeness above was reproduced from a life photograph, was a dark bay stallion, about 15.3 hands high. He had a brainy, sensible head and an expression of countenance that, to an experienced horseman, was indicative of both courage and a large amount of horse sense. His barrel was deep, back short and strong, hips smoothly turned, his quarters heavily muscled, and his hind legs noticeably straight. Taken all in all he was a grand model of a trotting stallion.

He was bred by William Dunn of Cincinnati, O., and foaled in 1879. His sire was George Wilkes (2.22). His dam was Lady Bunker, by Herr's Mambrino Patchen. Lady Bunker is also the dam of El Mahd (2.25), and produced four sons that have sired standard speed.

The second dam of Guy Wilkes was Lady Dunn, by Seely's American Star, and she also produced the trotter Joe Bunker (2.19). The latter was got by George Wilkes. The third dam of Guy Wilkes was known as the Capt. Roberts mare. She enjoyed the reputation of being the fastest trotter to be found in the section where she was owned, but her pedigree was never made public.

Guy Wilkes was bought before reaching maturity by the late William Corbitt, and taken to his San Mateo breeding establishment, near San Francisco, Cal. Mr. Corbitt was so fortunate as to secure the services of this very capable and industrious reinsman, John Goldsmith, a born horseman who had received an excellent schooling. Mr. Corbitt bought Guy Wilkes for stock purposes and kept him in the stud for a while every season that he owned the horse. Goldsmith developed his speed, however, and began racing the horse in 1884 when five years old. His first race was at San Francisco, Cal., Aug. 6, 1884. The first heat was won by Blanche in 2.25, but Guy Wilkes took the next three in 2.24, 2.24, 2.21. He started in nine races that season and won first money in all of them, losing but two heats in the nine races. He closed the season with a record of 2.19 made in the last heat of the last race that he trotted that year.

After making a season in the stud in 1885 Guy Wilkes was raced again. He was in better company that year than in 1884, and won first money in but three races out of the eight in which he started. Arab (2.15) beat him twice, but he beat Arab once, and made him trot two consecutive heats in 2.17 to win in the last race of that season. Nelly A. (2.17) beat Guy Wilkes three times early in the season, but he defeated her in the last race that they met, although she got the first heat of it in 2.17. He lowered his record that season to 2.18.

After making a season in the stud again in 1886, Guy Wilkes was fitted for campaigning, and began racing at Santa Rosa, Aug. 21. In this race he met Adair and Antee. Adair won the first heat in 2.20, but Guy Wilkes took the next three in 2.23, 2.19, 2.15. He started eight times that season, and won seven first moneys. The horse that defeated him was Harry Wilkes (2.13). He was not raced in 1887, and was started twice in 1888. He defeated Stamboul (2.07) and Woodnut (2.06) at Oakland, Cal., Aug. 27, 1888, in a five-heat race, and two weeks later was beaten by Woodnut in another five-heat race at Sacramento, Cal., Sept. 8, 1888. He was never started after the defeat by Woodnut.

During a visit to California in the winter of 1886 or 1887, trainer James Golden saw Guy Wilkes and liked him so well that after reaching home he decided to buy the horse if he could do so at a reasonable price. Mr. Golden attended the Goldsmith sale of trotting stock in New York in 1887 for the purpose of interviewing trainer John Goldsmith, and learning if it were probable that Mr. Corbitt would sell Guy Wilkes for \$30,000. Mr. Goldsmith informed him that \$40,000 would not tempt Mr. Corbitt to part with the horse, and also stated that he (Goldsmith) considered him the greatest thing stallion living.

After Mr. Corbitt's death the San Mateo horses were brought East and disposed of at public sale. This was in February, 1897. Mr. W. J. White, proprietor of Two-Minute Stock Farm, Cleveland, O., bought Guy Wilkes for \$5000. Hon. F. C. Sayles of Pawtucket, R. I., was the contending bidder and bought Sable Wilkes (3) (2.18) at that sale for \$1900. Guy Wilkes was kept at Two Minute Stock Farm until his death, which occurred about the middle of September, 1900.

The total number of the get of Guy Wilkes that have made records of 2.30 or better is seventy-six, and sixty-six of them are trotters. Three trotters and two pacers by him entered the list last season. There are nineteen of his get in the 2.15 list, and four of them are credited with records below 2.10, viz., Fred Kohl (2.07), Hulda (2.08), Seymour Wilkes (2.08) and Lessa Wilkes (2.06). The others that have made records better than 2.12 are Dollade Wilkes (2.12), Muta Wilkes (2.11), Ruppe (2.11), Hazel Wilkes (2.11), Alannah (2.11) and Regal Wilkes (2.11). Our books show that twenty-eight of the sons of Guy Wilkes have already sired 2.30 speed, and his daughters have produced twenty-five standard performers, twenty-three of which are trotters. His daughters have also produced six stallions that have already sired 2.30 speed. The likeness from which that represented on our first page was reproduced originally appeared in the Sunset Magazine.

General Notes.

New men are evidently becoming interested in trotting stock. It is announced that George R. Woodin, Boston, has been down in Kentucky recently and picked up two or three trotters that he intends to have campaigned. One is a three-year-old sister to Country Jay (2.10).

An item has been going the rounds of the press to the effect that Prelacy, dam of Prelacy (2) (2.13), had lost her foal by Ponce de Leon (2.13). As stated in the BREEDER last week, she foaled a few days ago a very handsome filly by Ponce de Leon. The youngster is alive and thriving.

It will be a great honor for honest Tom Marsh to win the M. and M. stake again this season. There are few more likely candidates now in sight for that rich event than Junotio, that trainer Marsh, representing Mr. Lawson, lately bought from Mr. Hanscome, representing Hon. Frank Jones.

John D. Moore, the circuit secretary, states that the fair dates fixed this year for the Short Shipment Circuit of southwest Missouri are as follows: Nevada, Aug. 5-8; Rich Hill, Aug. 12-15; Holden, Aug. 26-29; Harrisonville, Sept. 2-5. The State Fair at Sedalia, coming Aug. 18, will fill up the gap and make five weeks of continuous racing as heretofore.

The capable reinsman Myron McHenry paid J. W. Brodine's pacer *Laconda* (2.13) a deserved compliment last fall, when he pronounced him one of the highest-class pacers that he saw last season. He is bred right to be a high-class race horse. His sire is Allerton (2.04), and his dam, Kathrina, was by Alecyne (2.27), out of Katie Jackson (2.24), by Almont 33.

Secretary C. E. Conrade of the Columbus (O.) Driving Association writes the BREEDER that the purses and classes for their Grand Circuit meeting will be about the same as last year, that is, at least, the early-closing events. The directors have not yet fully decided upon the schedule, but he thinks it will be about as follows: 2.23 trot and 2.20 pace, \$5000 each; 2.17 and 2.12 classes, trotting, 2.16 and 2.10 classes, pacing, for purses of \$2000 each.

The dates and places of the Great Western Circuit are announced as follows: Joliet, Ill., June 24-27; Pekin, Ill., July 1-4; Minneapolis, Minn., July 8-11; Davenport, Ia., July 8-11; Detroit, July 14-18; Des Moines, Ia., July 22-25; Freeport, Ill., Aug. 12-15; Galesburg, Ill., Aug. 19-22; Columbus Junction, Ia., Aug. 26-29; Hamline, Sept. 1-4; Milwaukee, Wis., Sept. 9-12; Indianapolis, Ind., Sept. 16-19; Joliet, Ill., Sept. 23-26; Springfield, Ill., Sept. 29-Oct. 4.

Messrs. Thayer Brothers, proprietors of Maplehurst Farm, Lancaster, Mass., the home of Baron Wilkes (2.18), have sold Alandorf (2.19) to J. R. Murphy, Woodstock, N. B. Alandorf is the sire of twenty-eight in the list, including Emma E. (2.04), Dick Hubbard (2.09), Celaya (2.11), *Strong Boy* (2.11), etc., and he is a very rarely bred stallion. His sire is Onward (2.25), and his dam, the great brood mare Alma Mater (dam of Alcantara, 2.23, and Alecyne, 2.27, etc.).

The directors of the Nashua Fair Association have selected the following dates for their meetings this season: June 17-20, July 8-11, Aug. 5-8, Sept. 1-4 and Sept. 30-Oct. 3. The association is one of the most enterprising in the Union, and has opened two early-closing events for purses of \$2000 each, one for 2.35 class pacers, the other for 2.40 class trotters, for the fair meeting, to be held Sept. 1-4. The association will also hang up \$500 purses for 2.24 and 2.21 classes, trotting, and 2.30, 2.25, 2.20 and 2.17 classes, pacing. Another important departure from former years is the decision to reduce the entrance fee from ten to five per cent. to enter and five per cent. additional from money winners.

It is announced that The Viceroy has been promoted and will fill the place at Village Farm that has been occupied by Dare Devil (2.09). He is a grandly bred fellow sired by Mambrino King; dam, Princess Royal (2) (2.30), by Chimes; second dam, Estabella (dam of Heir At

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HIGH FARMING WITH FERTILIZERS

(From The American Agriculturist, March 1, 1902.)

It is an inspiration to all lovers of profitable agriculture to read the Mapes pamphlets. Professor Mapes has long exerted a powerful influence in behalf of better agriculture and more profitable farming in the Middle and New England States, and also at the South. His annual pamphlets are always full of meat, "horse sense," and the practical experience of farmers, fruit growers, market gardeners and others who continue to use the Mapes manures year after year because it pays them to do so.

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Law, 2.03, Prince Regent, 2.10, and Princess Royal, 2.20, by Alcantara (2.23); third dam, Annabel (dam of Polly Withers, 2.29), by George Wilkes (2.22); fourth dam, Jessie Pepper (dam of Iona, 2.17, Alpha, 2.23, etc.), by Mambrino King. The dam of the Viceroy is full sister of Princess Chimes (the dam of Lady-of-the-Manor, 2.04), and the Viceroy is full brother of the chestnut trotting stallion The Earl, that took a record of 2.17 at Hartford, Ct., Sept. 6, 1898.

Worcester (Mass.) Notes.

The secretaries of the more prominent half-mile tracks of New England met last Wednesday afternoon at the Lincoln House, in this city, and as a result of the three hours session, a half-mile track circuit for the season of 1902 was formally launched. The gathering of the secretaries in Worcester bore out the prediction the writer made in this column a week ago, to the effect that the half-mile tracks would get together and endeavor to effect an amicable settlement of the circuit question.

The meeting more than accomplished its purpose, and a circuit of five half-mile rings within twenty weeks of racing was adopted. The Worcester Driving Park Company and the Nashua Fair Association, two of the circuit's members, had previously claimed dates and entered a circuit agreement, with the expressed understanding that they should retain the dates they had claimed, and it was around the Worcester and Nashua dates that the weeks of racing were built up. Eight tracks were represented at last week's meeting, the call for which was issued by Julius F. Knight, secretary of Worcester driving park company. It was obvious that all the tracks having delegates at the meeting could not be included into one circuit, and in one or two cases the secretaries were there to protect their own interests, rather than with any thought of becoming closely identified with the circuit itself. Those at the meeting were J. F. Knight of Worcester; T. A. Crowley of Nashua; A. H. Moon of Providence; E. S. Steele of Holyoke; W. M. Leet of

Concord; J. F. Cook of Woonsocket, Joseph Trombly of Manchester, and E. N. Goodnow, representing the Westfield interests.

As soon as the meeting was called to order the secretaries settled down to the business ahead of them, and an expression of opinion as to the season's prospects was suggested and received from all of the gentlemen present. A. H. Moon, a Providence newspaper man, who represented Narragansett Park at Providence in the absence of Fred E. Perkins, who is now in the South, said he came with no authority to consent to any propositions that might be made, and suggested that the meeting proceed without thought of Providence. Walter M. Leet of Concord drew attention to his meetings at Concord, saying that while he did not expect admission to the circuit he hoped his brother secretaries would protect him as much as possible in regard to dates, and asked that Concord's dates, which he then submitted, be borne in mind by the schedule makers. Mr. Cook spoke in favor of the Woonsocket track, and from Manchester Joseph Trombly was present to advance the claims and advantages of that city as a circuit town, pointing out that a most successful race meeting was held there last fall, and that Manchester would like a circuit berth.

The presence at the meeting of Secretary Goodnow of the old Westfield association, which was expelled at the last National Association meeting for illegal practices, was something of a surprise. Mr. Goodnow explained that he attended the meeting in the interests of the Worcester and Cook of Woonsocket was appointed to retire and to report a circuit for the season. The committee's report was that the Circuit should be made up of Holyoke, Nashua, Westfield, Woonsocket and Worcester, the Manchester track being the only one desiring admission that was not included.

With the circuit formed, the secretaries of the five tracks comprising its membership got together and drew up a schedule, according to which Nashua gets five weeks of racing, Holyoke, Westfield and Worcester four each, and Woonsocket, the baby of the circuit, three weeks. The circuit will open at Nashua the third week in June, and will run through to the first of November, Westfield, as usual, concluding the season's programme. Here is the complete schedule:

Nashua, June 17-20; Woonsocket, June 24-27; Holyoke, July 1-4; Nashua, July 8-11; Worcester, July 15-18; Westfield, July 22-25; Holyoke, July 29-Aug. 1; Nashua, Aug. 5-8; Worcester, Aug. 12-15; Westfield, Aug. 19-22; Holyoke, Aug. 26-29; Nashua, Sept. 1-4; Woonsocket, Sept. 9-12; Worcester, Sept. 16-19; Westfield, Sept. 23-26; Nashua, Sept. 30-Oct. 3; Woonsocket, Oct. 7-10; Worcester, Oct. 14-17; Holyoke, Oct. 21-24; Westfield, Oct. 28-Nov. 1.

In the course of a few weeks there will be another meeting of the secretaries to decide upon a uniform set of conditions to govern entries and racing all along the circuit. While no formal announcement to that effect has as yet been made, it is highly probable that a five per cent. entrance fee will be established for all tracks, and that under no consideration will conditional entries be accepted. The purses will be of a \$300 value each, with the exception of at Nashua, where the week of the fair some stake events for larger amounts have been announced. The secretaries at last week's meeting were unanimous in their belief that the prospects of a successful season were of the best, and much gratification was expressed that the circuit had Worcester, which it was feared at one time had been lost, as a circuit member.

In Worcester. The stalls will be built in the form of three sheds, with eight stalls on either side of each shed, and the total cost of construction will be \$2000 or thereabouts.

The agricultural society, at its meeting, voted in favor of an agricultural fair this year, but the details of arrangements were entrusted to the board of trustees, with power to act. They will, of course, be some horse races in connection with the fair, but the size of the purses has not been announced. At the fair two seasons ago three or four stake races were announced, but for some reason, attracted very few entries, and it is likely that the society will confine itself to straight class races in the future.

James H. Quinn entered yesterday his two year-old trotters in the \$5000 Blue Hill stake to be decided at the Grand Circuit meeting at Lowell in August. Mr. Quinn's entries are Whips and Tadeaster, neither of which worked at all last season, as they had a touch of colic, and were kept in the stable. Tadeaster is a colt, a full sister to Whips. Tadeaster is bred by H. L. Asher of Lexington, Ky., and owned by Alfred G. (2.19), out of Corsette, by Russell. Both were bought by their present owner at the Fasig sales as two and three year-olds respectively.

John Kervick is wintering at his quarters at Greendale track seven or eight horses, and has received quite a number of new ones this season. He has for marked pacers Newmarket (2.19), Conlie T. (2.19) and Red Shield (2.21). The others include a very promising trotting stallion, Delinator, a colt by Baron Wilkes (2.18), and a few others equally well bred. He will hit J. H. Quinn's horses for the campaign, and will be seen behind Camille (2.07) again this season, although Camille devoted his energies solely to the New England tracks.

Worcester, Mass., March 2, 1902.

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